TRADEBE
Life Sciences

PRODUCT OVERVIEW & LIFECYCLE APPLICATIONS

purification
A TRADEBE COMPANY

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1. Why Purification matters in Life Sciences

In pharmaceutical, biotech and specialty chemical environments, **purity is not a specification — it is a requirement**.

From early-stage R&D to commercial production, solvent quality directly impacts:

- Process performance and reproducibility
- Impurity profiles and final API quality
- Regulatory compliance and audit readiness
- Cost efficiency and solvent lifecycle management

At Tradebe Life Sciences, we support companies operating in **highly regulated environments** by delivering **consistent, validated and traceable purification solutions** across the full value chain.

This guide provides an overview of:

- Key solvent families used in Life Sciences purification
- Typical applications and purification challenges
- How custom recovery and purification add value beyond standard supply

2. Where our purification solutions could in your workflow

Our purification services are designed to support **multiple stages of the Life Sciences workflow:**

- Research & Process Development
- High-purity solvents for screening, synthesis and scale-up
- Tight impurity control for reproducibility
- Small to medium volumes, quick turnaround
- Clinical & Pilot Scale
- Consistent quality between batches
- Support for validation activities
- Secure solvent recovery and reuse strategies
- Commercial Manufacturing
- Reliable supply of purified solvents at industrial scale

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3. Purified Solvent Portfolio for Life Sciences Applications

Below is an overview of our **core solvent categories**, aligned with their most common Life Sciences uses.

Alcohols

Typical applications

- API synthesis
- Cleaning processes
- Crystallization and extractions

Available options

- Ethanol (IDA 94% & 96%)
- Isopropanol (including azeotrope grades)
- Methanol
- Isobutanol
- Iso Amyl Alcohol (kosher & non-kosher options)
- CDA

Key value

- Controlled water content
- Batch-to-batch consistency
- Suitability for regulated environments

Ketones

Typical applications

- Reaction solvents
- Intermediate purification
- Formulation steps

Available options

- Acetone 97% / 99%
- Methyl Ethyl Ketone (MEK)
- Methyl Isobutyl Ketone (MIBK)

Key value

- High chemical purity
- Effective impurity removal
- Supply continuity at scale

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Chlorinated Solvents

Typical applications

- Selective extraction
- Complex separations
- Specialty chemical processes

Available options

- Methylene Chloride 98% / 99%
- Monochlorobenzene

Key value

- Rigorous purification control
- Safe handling and recovery solutions
- Regulatory-focused solvent management

Hydrocarbons

Typical applications

- Reaction media
- Cleaning and rinsing
- Non-polar extraction processes

Available options

- Toluene
- Xylene
- White Spirit

Key value

- Controlled impurity profile
- Reliable supply for large-scale use

Polar Aprotic Solvents

Typical applications

- API synthesis
- Peptide and advanced chemistry
- High-performance reactions

Available options

- Acetonitrile 99.5% / 99.9%
- Dimethyl Formamide (DMF)
- Dimethyl Acetamide (DMAC)
- Pyridine 99.5%
- Mixed Pyrazines

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Key value

- High purity for critical reaction steps
- Traceability and quality assurance
- Proven performance in regulated processes

Ethers

Typical applications

- Reaction solvents
- Organometallic chemistry
- Specialty synthesis

Available options

- Tetrahydrofuran (THF) 99.5% / 99.8%
- 2-Methyltetrahydrofuran 99.8%
- MTBE 95%
- Diethyl Ether

Key value

- Peroxide-controlled purification
- Safety-conscious solvent management
- Custom recovery options

Organic Acids & Polyols

Typical applications

- Synthesis and formulation
- pH control
- Stabilization processes

Available options

- Acetic Acid 80% / 99%
- Glycerol
- Mono Ethylene Glycol (MEG)
- Mono Propylene Glycol (MPG)

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3. Beyond Standard Products: Custom Purification & Recovery

Many Life Sciences processes generate **unique solvent streams** that cannot be managed with off-the-shelf solutions.

Examples of custom solutions:

- Amino-benzyl compound purification
- Iodide conversion and recovery
- Tailored purification of complex solvent mixtures
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Our experts design **bespoke purification workflows**, allowing you to:

- Recover high-value solvents
- Reduce waste and raw material consumption
- Improve sustainability without compromising quality
- Maintain confidentiality of proprietary processes

4. Why Tradebe Life Sciences?

- Deep expertise in **chemical purification**
- Experience across **pharma, biotech & specialty chemicals**
- Focus on **quality, safety and regulatory alignment**
- Ability to scale from R&D to industrial production
- Integrated recovery, purification and waste management
- We don't just supply purified solvents — **we become part of your purification strategy**.